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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/598,110
Filing Date: August 17, 2006
Appellant(s): ITOH ET AL.

Erik Preston
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed August 6, 2010 appealing from the Office action mailed December 7, 2009.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 22-41 have been rejected and are pending.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

7,474,309	**Kolpasky et al.**	**1-2009**
JP 10-297318 A	**Yahara et al.,**	**11-1998**
JP 11-099852 A	**Hirasuna**	**04-1999**
JP 2000-292198	**Ui**	**10-2000**

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22, 23, 27-29, 36-39, and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Yahara et al. (Japanese Published Patent Application 10-297318).

With reference to claim 22, Yahara et al. teaches an instrument panel image display device, installed on an apparatus so as to display an instrument panel image, said instrument panel image display device comprising:

a display (24) arranged to display the instrument panel image including a plurality of gauge images, by which internal and external information of the apparatus is

provided to a user, said instrument panel is displayed in accordance with a plurality of image data which generates the plurality of gauge images, wherein each of said plurality of image data individually generates one of said plurality of gauge images (see paragraph 18, paragraph 20, lines 1-2, paragraph 21, lines 7-9, and paragraph 22, lines 10-15 - the HUD image includes gauge images that show the rate of the car in addition to functions related to the switches, which can be assigned to control car temperature and air flow, among other things, and because each piece of information that is displayed is generated by a different component of the car, each piece of information is separately supplied and generates an image corresponding to the data it represents); and

an image data changing section (22) arranged to change one of said plurality of image data into another image data, said another image data generating another gauge image (see paragraph 24, lines 7-10 and Figure 10 – the down arrow is activated such that it now appears different than the up arrow, which has not been activated, while before the arrow was activated both arrows appeared to be the same color, and the newly generated and displayed gauge image is different than the previously generated and displayed gauge image).

With reference to claim 23, Yahara et al. teaches all that is required with reference to claim 22, and further teaches a parameter changing section (22) arranged to change a value indicated by a parameter which defines a display state of the gauge image into another value (see paragraph 24, lines 1-3 – the computer registers that a

parameter change has been input, and informs the display to modify the displayed data accordingly).

With reference to claim 27, Yahara et al. teaches all that is required with reference to claim 23, and further teaches that the parameter defines at least a size (see paragraph 43, lines 14-17, paragraph 44, and paragraph 2, lines 11-13 – both displays can be changed to modify the size of certain components to aid elderly drivers in viewing the information about the vehicle's speed and temperature) and a color of the gauge image (see paragraph 24, lines 7-10).

With reference to claim 28, Yahara et al. teaches all that is required with reference to claim 22, and further teaches an image data obtaining section (23) arranged to obtain image data, which generates said another gauge image, via a network line, from a server having a storage section (21) which stores the image data (see paragraph 18 and paragraph 12, lines 6-9).

With reference to claim 29, Yahara et al. teaches all that is required with reference to claim 23, and further teaches that the apparatus is a vehicle (see paragraph 9, line 1), and the instrument panel image includes at least a speedometer image indicative of a running speed of the vehicle as the gauge image, and the parameter changing section changes the parameter so that the speedometer image is displayed in front of a driver or in a predetermined position in a visual field of the driver (see paragraph 43, lines 14-17 and paragraph 44 – the speedometer display is made larger such that it is easier for the driver to view both on the center console and the

heads up display, additionally see paragraph 18, the display can be a heads up display 24 that is placed directly in the driver's field of view while watching the road).

With reference to claim 36, Yahara et al. teaches all that is required with reference to claim 28, and further teaches a server (21), providing the image data that generates said another gauge image to the instrument panel image display device (see paragraph 12, lines 2-6).

With reference to claim 37, Yahara et al. teaches all that is required with reference to claim 28, and further teaches a server (21) for providing the image data that generates said another gauge image to the instrument panel image display device (see paragraph 12, lines 6-9 and paragraph 24).

With reference to claim 38, Yahara et al. teaches all that is required with reference to claim 22, and further teaches that the instrument panel image display device is part of a vehicle (see paragraph 9, line 1).

With reference to claim 39, Yahara et al. teaches a method of changing an instrument panel image displayed in an instrument panel image display device installed on an apparatus, said method comprising the steps of:

displaying the instrument panel image including a plurality of gauge images, by which internal and external information of the apparatus is provided to a user, said instrument panel image is displayed in accordance with a plurality of image data which generates the plurality of gauge images, wherein each of said plurality of image data individually generates one of said plurality of gauge images (see paragraph 18, paragraph 20, lines 1-2, paragraph 21, lines 7-9, and paragraph 22, lines 10-15 - the

HUD image includes gauge images that show the rate of the car in addition to functions related to the switches, which can be assigned to control car temperature and air flow, among other things, and because each piece of information that is displayed is generated by a different component of the car, each piece of information is separately supplied and generates an image corresponding to the data it represents); and

changing one of the plurality of image data into another image data, said another image data generating another gauge image (see paragraph 24, lines 7-10 and Figure 10 – the down arrow is activated such that it now appears different than the up arrow, which has not been activated, while before the arrow was activated both arrows appeared to be the same color, and the newly generated and displayed gauge image is different than the previously generated and displayed gauge image).

With reference to claim 41, Yahara et al. teaches a computer readable storage medium, storing an instrument panel image display program, causing the instrument panel image display device as set forth in claim 22 to operate, said instrument panel image display program being characterized by causing a computer to perform the following steps:

displaying the instrument panel image including a plurality of gauge images, by which internal and external information of the apparatus is provided to a user, said instrument panel image is displayed in accordance with a plurality of image data which generates said gauge images, wherein each of said plurality of image data individually generates one of said plurality of gauge images (see paragraph 18, paragraph 20, lines 1-2, paragraph 21, lines 7-9, and paragraph 22, lines 10-15 - the HUD image includes

gauge images that show the rate of the car in addition to functions related to the switches, which can be assigned to control car temperature and air flow, among other things, and because each piece of information that is displayed is generated by a different component of the car, each piece of information is separately supplied and generates an image corresponding to the data it represents); and

changing one of the plurality of image data into another image data, said another image data generating another gauge image (see paragraph 24, lines 7-10 and Figure 10 – the down arrow is activated such that it now appears different than the up arrow, which has not been activated, while before the arrow was activated both arrows appeared to be the same color, and the newly generated and displayed gauge image is different than the previously generated and displayed gauge image).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yahara et al. in view of Hirasuna (Japanese Patent Publication No. 11-099852).

With reference to claim 24, Yahara et al. teaches all that is required with reference to claim 23, but fails to teach a parameter judging section.

Hirasuna teaches a parameter judging section (103) arranged to judge whether the value indicated by the parameter is within a predetermined range or not (see paragraph 6, lines 10-17 and paragraph 8, lines 6-13).

It would have been obvious to one of ordinary skill in the art at the time of invention to use a parameter judging section in a changing display such that a change in the data to be displayed can be recognized and the display can be changed while still being optimized, as taught by Hirasuna.

With reference to claim 25, Yahara et al. and Hirasuna teach all that is required with reference to claim 24, and Hirasuna further teaches that, when the parameter judging section judges that the value indicated by the parameter is not within the predetermined range, the parameter changing section (104) changes the value indicated by the parameter into a value within the predetermined range (see paragraph 6, lines 10-17 and paragraph 8, lines 6-13).

With reference to claim 26, Yahara et al. and Hirasuna teach all that is required with reference to claim 25, and Hirasuna further teaches that the parameter changing section changes the value indicated by the parameter into a value closest to a set value within the predetermined range (see paragraph 8, lines 10-17).

Claims 30-32, 34, 35, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yahara et al. in view of Kolpasky et al. (US Patent No. 7,474,309), and further in view of Ui (Japanese Published Patent Application 2000-292198).

With reference to claim 30, Yahara et al. teaches an instrument panel image display device, installed on an apparatus so as to display an instrument panel image, said instrument panel image display device comprising:

a display (24) arranged to display the instrument panel image including a gauge image, by which internal and external information is provided to a user, in accordance with image data that generates said gauge image (see paragraph 18, paragraph 20, lines 1-2, paragraph 21, lines 7-9, and paragraph 22, lines 10-15 - the HUD image includes gauge images that show the rate of the car in addition to functions related to the switches, which can be assigned to control car temperature and air flow, among other things, and because each piece of information that is displayed is generated by a different component of the car, each piece of information is separately supplied and generates an image corresponding to the data it represents); and

an image data changing section (22) arranged to change said image data, which generates said image into another image data, said another image data generating another image (see paragraph 24, lines 7-10 and Figure 10 – the down arrow is activated such that it now appears different than the up arrow, which has not been activated, while before the arrow was activated both arrows appeared to be the same color, and the newly generated and displayed gauge image is different than the previously generated and displayed gauge image).

Yahara et al. fails to teach that the image data also includes background image data.

Kolpasky et al. teaches that the display also displays a background image, which serves as a background of the main image, and that the background image is generated by background image data (see column 4, lines 41-42 and 52-57).

Kolpasky additionally teaches that the background color can be any of a variety of colors, particularly white, black or shades of gray (see column 4, lines 41-42).

Ui teaches varying the display data depending on the determination as to whether it is day or night (i.e. bright or dark environment), such that the background of the display screen becomes darker (see paragraph 20, lines 4-7 and Figure 4).

It would have been obvious to one of ordinary skill in the art at the time of invention that background image data may need to be adjusted for the ease of use of a display during different times of day, as taught by Ui, such that the background data as taught by Kolpasky et al. can vary between shades of white and black as necessary according to the determination of time of day by the display controller. It further would have been obvious to generate separate gauge image data and background image data such that each portion of the display can be supplied only the appropriate data to generate the desired image (i.e. each gauge data is responsible only for the area of the display that it covers, and the background data fills in any areas that have not been occupied by the gauge images).

With reference to claim 31, Yahara et al., Kolpasky et al., and Ui teach all that is required with reference to claim 30, and Ui further teaches a parameter changing

section (CPU1) arranged to change a value indicated by a parameter that defines a display state of the background image into another value (see paragraph 20, lines 4-7).

With reference to claim 32, Yahara et al., Kolpasky et al., and Ui teach all that is required with reference to claim 31, and Ui further teaches a parameter judging section (CPU1) arranged to judge whether the value indicated by the parameter is within a predetermined range or not (see paragraph 20, lines 4-7).

With reference to claim 34, Yahara et al., Kolpasky et al., and Ui teach all that is required with reference to claim 31, and Ui further teaches that the parameter defines at least one of a color or a luminance of the background image (see paragraph 20, lines 4-7).

With reference to claim 35, Yahara et al., Kolpasky et al., and Ui teach all that is required with reference to claim 31, and Yahara et al. further teaches that the parameter changing section changes a parameter of at least either the gauge image or the background image so that a periphery of the gauge image is bordered (see paragraph 29, lines 7-9 and Figure 11 - the images are emphasized through the use of borders around each of the gauge images to be focused on).

With reference to claim 40, Yahara et al. teaches a method of changing an instrument panel image displayed in an instrument panel image display device installed on an apparatus, said method comprising the steps of:

displaying the instrument panel image including a gauge image, by which internal and external information of the apparatus is provided to a user in accordance with image data that generates the gauge image (see paragraph 18, paragraph 20, lines 1-2,

paragraph 21, lines 7-9, and paragraph 22, lines 10-15 - the HUD image includes gauge images that show the rate of the car in addition to functions related to the switches, which can be assigned to control car temperature and air flow, among other things, and because each piece of information that is displayed is generated by a different component of the car, each piece of information is separately supplied and generates an image corresponding to the data it represents); and

changing the image data which generates said image into another image data generating another image (see paragraph 24, lines 7-10 and Figure 10 – the down arrow is activated such that it now appears different than the up arrow, which has not been activated, while before the arrow was activated both arrows appeared to be the same color, and the newly generated and displayed gauge image is different than the previously generated and displayed gauge image).

Yahara et al. fails to teach that the image data also includes background image data.

Kolpasky et al. teaches that the display also displays a background image, which serves as a background of the main image, and that the background image is generated by background image data (see column 4, lines 41-42 and 52-57).

Kolpasky additionally teaches that the background color can be any of a variety of colors, particularly white, black or shades of gray (see column 4, lines 41-42).

Ui teaches varying the display data depending on the determination as to whether it is day or night (i.e. bright or dark environment), such that the background of the display screen becomes darker (see paragraph 20, lines 4-7 and Figure 4).

It would have been obvious to one of ordinary skill in the art at the time of invention that background image data may need to be adjusted for the ease of use of a display during different times of day, as taught by Ui, such that the background data as taught by Kolpasky et al. can vary between shades of white and black as necessary according to the determination of time of day by the display controller. It further would have been obvious to generate separate gauge image data and background image data such that each portion of the display can be supplied only the appropriate data to generate the desired image (i.e. each gauge data is responsible only for the area of the display that it covers, and the background data fills in any areas that have not been occupied by the gauge images).

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yahara et al., Kolpasky et al., and Ui as applied to claim 32 above, and further in view of Hirasuna.

Yahara et al., Kolpasky et al., and Ui teach all that is required with reference to claim 32, but fail to teach that when the parameter judging section judges that the value indicated by the parameter is not within the predetermined range, the parameter changing section changes the value indicated by the parameter into a value within the predetermined range.

Hirasuna teaches that when the parameter judging section judges that the value indicated by the parameter is not within the predetermined range, the parameter changing section changes the value indicated by the parameter into a value within the predetermined range (see paragraph 8, lines 10-17).

It would have been obvious to one of ordinary skill in the art at the time of invention that if the data values being input to the display are not acceptable to the display circuitry, it is possible to either reject the values and not display anything, or to adjust the values and display the adjusted values. It would be obvious, then, to use the method of adjusting the values to prevent discontinuity in the displayed data.

(10) Response to Argument

Appellant has argued (see pages 11-15) that Yahara et al. fails to teach each and every limitation of independent claims 22 and 39. Examiner disagrees with this statement. Examiner has further clarified the above rejection to indicate that the display as claimed is cited as the heads up display of Yahara et al., indicated by number 24. Appellant contends that the image data displayed by Yahara et al. does not comprise a plurality of gauge images generated by a plurality of image data. However, as Examiner has pointed out, each of the generated gauge images comes from a different component of the vehicle, such that each piece of data is generated in a separate location and then provided to the display. The limitation of "a plurality of image data" does not define over Yahara's teaching of several gauges on a display each being able to be modified without affecting the other images – each gauge image is generated by image data that is designated to display that gauge only, and even if it is combined with other gauge data to create an overall display, each gauge is still controlled by data that is specific to only that gauge. Each gauge is further able to be modified, for example the size or color of a particular gauge, without affecting the display of other gauges, as cited above. In view of the above clarification of the rejection, specifying that the relevant

display taught by Yahara et al. is the heads up display 24, Appellant's arguments with reference to the center console display 6 and any images displayed on it are not relevant. Appellant further argues (see page 14, last paragraph) that Yahara et al. teaches that when a gauge image is changed, that one HUD image is replaced with another, but that this does not constitute a change of image data. However, Examiner contends that if the image being displayed is changed, the data used to generate the displayed image inherently must be changed. Whether it is modified or replaced, the data is changed from its current state to something else, such that the HUD image data taught by Yahara clearly is changed when the gauge images are changed on the display.

Appellant has also argued (see pages 16-21) that Yahara et al. in view of Kolpasky et al. and Ui fail to teach the limitations of independent claims 30 and 40. Examiner disagrees with this statement. As stated above, Examiner has further clarified the above rejection to indicate that the display as claimed is cited as the heads up display of Yahara et al., indicated by number 24. Therefore, Examiner contends that Yahara et al. does in fact teach individual image data that corresponds to a specific gauge image. As to the background image, Appellant states that Kolpasky et al. has no teaching of changing the background. However, the cited portion of Kolpasky, which states: "Portions of the screen between the first icon 58A and the third icon 58C have changed from the background color to blue…" (see column 4, lines 52-54), which clearly does teach that the background image is capable of changing. Similar to Yahara et al., Kolpasky et al. teaches several gauge images, which would similarly be generated by a

plurality of image data, contrary to Appellant's argument. Appellant continues to argue that although Kolpasky et al. may change the background color, nothing is taught about the changing the background data. However, it is inherent that if the image displayed on the screen is changed, the data used to generate that image must have been modified. The Ui reference, which Appellant argues also fails to teach changing the background data, has been introduced to further show that the background data of an image can be changed such that the color varies, for the purpose of aiding the user in seeing the display at various times of day, similar to the adjustment of size or color of the gauge images of Yahara et al., which are also varied to aid the user in seeing the displayed gauges (for example, larger gauges for the elderly). Ui also inherently teaches that the background data is changed, because the color of the background image cannot be changed without the data being modified.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/ILANA SPAR/

Examiner, Art Unit 2629

Conferees:

*/Bipin Shalwala/

Supervisory Patent Examiner, Art Unit 2629**

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